TOP SECRET

#70099

T O P S E C R E T 192151Z JUN 70 CITE [redacted] 8738 25X1

[redacted] 25X1

CORONA
REF A: [redacted] 4941 25X1
B: [redacted] 4987
SUBJ: MSN 1110 PHOTOGRAPHIC EVALUATION INTERIM REPORT (PEIR)
1. NUMERICAL SUM:
MSN NO AND DATES: 1110-1 20-31 MAY 70 RECOVERY 31 MAY 70/2230Z
-2 31 MAY 70 - 8 JUN 70 RECOVERY 8 JUN 70/2230Z

LAUNCH DATE & TIME: 20 MAY 70/2135Z
VEHICLE NO: 1656
CAM SYS: CR-11
PAN CAMS: AFT LOOKING 322, FILM TYPES 3404/SO-349/3404
FWD LOOKING 323, FILM TYPES 3404/SO-349/3404
DISIC UNIT: NO 10
STELLAR LENS: PORT F/2.8, 1.5 SEC, NO FILTER
STB F/2.8, 1.5 SEC, NO FILTER
FILM TYPE: 3401
TERRAIN LENS: F/6.3, 1/500 SEC, FIXED W-12 FILTER
FILM TYPE: 3400
RECOVERY REVS: MSN 1110-1, REV 179
-2, REV 309
LAUNCH WINDOW: 2130Z TO 2220Z, 20 MAY 70
2. CAM SETTINGS:
FWD LOOKING: WRATTEN 23 A (PRIMARY)
WRATTEN 25 (ALT)
SLIT WIDTH POS 1 - 0.141 INS (MEASURED)
2 - 0.167 INS (MEASURED)
3 - 0.203 INS (MEASURED)
4 - 0.108 INS (MEASURED)
FAIL SAFE - 0.153 INS (MEASURED)
AFT LOOKING : WRATTEN 21 (PRIMARY)
WRATTEN 23 A(ALT)
SLIT WIDTH POS 1 - 0.104 INS (MEASURED)
2 - 0.132 INS (MEASURED)
3 - 0.160 INS (MEASURED)
4 - 0.080 INS (MEASURED)
FAIL SAFE - 0.118 INS (MEASURED)

DISTRIBUTION
CY	OFFICE	PI
1	FILE	
2	CABLE SEC.	
	PF&B/RD	
1	SECUR.	
3,4	TSSG/APS	
	PSG/OC	
	RSD	

3. PERFORMANCE SUM:
A. [redacted] REPORTED MSN 1110 IMAGE QUALITY LESS THAN THAT OF [redacted] PREVIOUS 1100 SERIES MSNS AND PI SUIT RANGES FROM GOOD TO POOR - MOSTLY IN FAIR TO POOR CATEGORY. 25X1
B. PET CONCURS WITH THIS BASIC ASSESSMENT, FINDING A NUMBER OF FACTORS CONTRIBUTING TO MEDIOCRE PERFORMANCE OF THIS MSN:
(1) SCALE: SMALL SCALE OF IMAGERY, WHEN COMPARED TO EARLY 1100 SERIES MSNS, CONTINUES TO BE A MAJOR DETRIMENT TO PI SUIT. SMALL SCALE WAS AGAIN REPORTED BY [redacted] AS DEGRADING PI READOUT. PET STRONGLY RECOMMENDS, IN VIEW OF [redacted] REPORT, THAT [redacted] REASSESS SELECTION CRITERIA WHICH PRESENTLY FAVORS COVERAGE OVER QUALITY FOR THE 1100 SERIES MSNS. 25X1 25X1
(2) CAM SYS RES PERFORMANCE: GROUND SYS TEST PERFORMANCE OF CR-11 MSN 1110, WAS POOREST OF ANY 1100 SERIES SYS FOLWN IN PAST TWO YRS. PEAK RES OF 166 L/MM FOR FWD CAM AND 120 L/MM FOR AFT CAM ARE EACH APPROX 20 L/MM LOWER THAN PREVIOUS 1100 SERIES MSNS. FROM GROUND TEST DATA, IT HAD BEEN PREDICTED THAT MIP RATING FOR MSN 1110 WOULD NOT EXCEED 90 IF SELECTED FROM AFT CAM OR 100 IF SELECTED FROM FWD.

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[redacted] 25X1

(3) CAM FOCUS: SOME AFT CAM RESULTS, BASED ON CORN READINGS, WERE AS GOOD OR BETTER THAN COULD BE EXPECTED FROM ITS GROUND TEST DATA. FWD CAM READINGS DO NOT MEET EXPECTATIONS. LOSSES APPEAR TO BE CAUSED BY AN OUT OF FOCUS CONDITION. FWD IMAGERY IS MORE SEVERELY AFFECTED ON THE FILM'S OUTBOARD EDGE INDICATING A FILM PLANE TILT. ACTUAL FOCUS IS FORWARD OF FILM PLANE FOR SYSTEM, A CONDITION EFFECTED BY LOWER TEMPS WHICH ARE BEING ACHIEVED BY PRESENT THERMAL DESIGN. AS TEMP DECREASES IN THE SYS, FILM LIFT INCREASES. INCREASING FILM LIFT RESULTS IN GREATER FILM LIFT VARIABILITY. PET RECOMMENDS REVIEW OF SYS THERMAL DESIGN. IF NOT PRACTICAL TO ACHIEVE ABOVE 60 - 65 DEG RANGE, CAM SYS FOCUS SETTING SHOULD BE BASED ON EXPECTED RANGE RATHER THAN AT 70 DEG NOMINAL. THE OUT OF FOCUS CONDITION APPEARS WORSE ON 1110-1 THAN 1110-2; POSSIBLY DUE TO FILM DRYING WHICH RESULTS IN LESS FILM LIFT VARIABILITY.

(4) FILTER: THE ALT FILTER IN FWD CAM WAS A W-25. THE OP UTILIZING THIS FILTER ACHIEVED A CORN GRD IMPROVEMENT OF 1 FT OVER THOSE CORN READINGS OBTAINED WITH PRIME FILTER, W-23. IT IS POSSIBLE THAT THE PRIME FILTER USAGE DETRACTED FROM PI INTERP. PET RECOMMENDS THAT ALL FUTURE FLIGHTS UTILIZE A W-25 AS PRIMARY FILTER FOR FWD CAMERA.

C. THREE CORN TGTS WERE COVERED ON MSN 1110. EACH COVERAGE INCLUDED BOTH A 51/51 TGT AND A VERNIER TGT, WHICH IS DISPLAYED SPECIFICALLY FOR ASSESSING PERFORMANCE OF 1100 SERIES MSNS. READINGS SHOWN ARE FOR VERNIER TGT AND ARE AN AVERAGE OF 7 READERS FROM [redacted] 1 25X1

PASS	GROUND RES IN FT FWD		AFT	
	IN TRACK	CROSS TRACK	IN TRACK	CROSS TRACK
D129	9	9	7	CLOUD COVERED
D210	8	8	7.5	7.5
D226	9	9	8	7.5

4. PAN CAM ANOMALIES:

A. ANOMALY: A BAND OF DIAGONAL MARKS (ROPE APPEARANCE), 0.1 IN WIDE AND 0.3 IN FROM BINARY EDGE, RUNS CONTINUOUSLY FROM FR 23 TO FR 38 OF FWD PASS D263, WITHIN ACTIVE FORMAT. BAND RESUMES IN FR 43 AND CONTINUES THROUGH FR 92. IT DOES NOT APPEAR ON LAST FR OF PASS D263.

CAUSE: CAUSE IN UNKNOWN; HOWEVER, NO PHYSICAL DAMAGE OR IMAGE DEG IS ASSOCIATED WITH THIS MARKING.

ACTION: NONE.

B. ANOMALY: AN INTERMITTENT, 8 IN LONG, LONGITUDINAL EMULSION SCRATCH ORIGINATES APPROX 3 INS FROM SUPPLY END OF FR AND EXTENDS THROUGH A. O. AND INTO TAKE-UP OF ADJ FR. SCRATCH IS LOCATED IN FWD FORMAT ONE IN FROM BINARY FILM EDGE. SEVERITY OF SCRATCH DECREASES AS MSN PROGRESSES.

CAUSE: THIS ANOMALY WAS PRESENT DURING SYS TESTS, APPEARING MORE AS PRESSURE MARK THAN SCRATCH. MARK EXHIBITED "SKEWED/BRUSHING" APPEARANCE ACROSS ITS WIDTH BUT SHOWED NO EVIDENCE OF EMULSION GOUGING. SOURCE OF MARKING WAS LOCATED ON INPUT SIDE IMMEDIATELY PRIOR TO ENTERING A. O. PLATEN. EQUIP IN THIS AREA WAS PARTIALLY DISASSEMBLED AND INSPECTED BUT DIRECT CAUSE OF MARK WAS NOT DETERMINED. DURING FLT READINESS TEST, WITH FLT TAKE-UPS INSTALLED, PRESSURE MARK WAS OBSERVED TO BE LESS SEVERE, AND FURTHER DISASSEMBLY AND INSPECTION WERE CONSIDERED UNWARRANTED.

ACTION: NONE.

C. ANOMALY: PARTS OF SOME FWD OPS APPEAR UNDEREXPOSED AND OTHERS APPEAR OVEREXPOSED. (EX: PASS D186, D202, D234.)

CAUSE: THIS CONDITION OCCURRED WHERE OPS RQMNTS FOR SO-349 AND 3404 NECESSITATED A RESTRICTION IN SLIT SELECTION AND SUBSEQUENT ORBITAL EXPOSURE SELECTION. SINCE ONE SLIT ON EACH CAM WAS ASSIGNED 1

SPECIFICALLY FOR SO-349, ONLY THREE SLITS WERE AVAILABLE FOR USE ON 3404. CONSEQUENTLY, OPTIMUM EXP COULD NOT BE ACHIEVED ON ALL PASSES.

ACTION: NO FURTHER ACTION REQUIRED.

D. ANOMALY: SEVERAL MINUS DENSITY DEFECTS ARE PRESENT INTERMITTENTLY THROUGHOUT SO-349 AFT RECORD AND AT LEAST ONCE IN SO-349 FWD RECORD.

CAUSE: ANALYSIS INDICATES FOREIGN LIQUID SUBSTANCE FORMED A DROP ON FILM. AS DROP WAS TRANSPORTED THROUGH INPUT METERING ROLLER ASSEMBLY OR PROCESSOR ROLLER, SUBSTANCE WAS SQUEEGEED. THIS SQUEEGEED PATTERN WAS REPEATED 4 TO 5 TIMES AT A PITCH OF SIX AND THREE EIGHTS INS AND EITHER DESENSITIZED THE EMULSION OR PREVENTED PENETRATION OF VISCOUS DEVELOPER, THEREBY RESULTING IN MINUS DENSITY SPOTS. ANALYSIS CONCLUDED THIS ANOMALY IS NOT A FILM DEFECT. MATERIAL HAD SUFFICIENT TIME TO DRY PRIOR TO BEING WRAPPED ON A SPOOL AND PATTERN OCCURRED RANDOMLY. TIME OF OCCURRENCE CANNOT BE SPECIFICALLY ASCERTAINED.

ACTION: INVESTIGATE POSSIBLE SOURCES OF CONTAMINATION. ASSIGNED TO [redacted] 25X1

E. ANOMALY: THREE FILM NICKS AND A DIAGONAL CREASE IN FRS 25 AND 26 OF AFT PASS D187,WERE CAUSED WHEN FILM TRACKED OVER FLANGE OF GUIDE ROLLER DURING POST MSN PRESPLICE OP. A MFG SPLICE IS LOCATED IN FR 26 OF PASS D187.

CAUSE: DURING PRESPLICE AT [redacted] IT WAS NOTED THAT AFT CAM "B" ROLL WAS SLIGHTLY OUT OF ROUND. AS MFG SPLICE IN FR 26 LEFT CAM ROLL, SLACK SUDDENLY FORMED AND CAUSED FILM TO TRACK OVER FLANGE OF GUIDE ROLLER ON PRESPLICE TABLE. SLACK RESULTED FROM OUT OF ROUND CONDITION OF CAM ROLL AS RECEIVED BY [redacted] 25X1 25X1

ACTION: NO ACTION RECOMMENDED.

F. ANOMALY: GROUND HANDLING - SET OF DIAL THERMOMETERS WERE INSTALLED IN FILM HANDLING CASES FOR THIS MSN. UPON ARRIVAL AT [redacted] 25X1 READINGS RECORDED FOR MAX TEMP REACHED IN EACH SUITCASE WERE:

	1110-1	1110-2
FWD	114 DEG F	117 DEG F
AFT	102 DEG F	205 DEG F

THIS INDICATED HIGH TEMP FOR 1110-2 AFT CAUSED CONCERN AMONG [redacted] 25X1 TEAM AT PROC SITE. CONCERN WAS ACCENTUATED BY PRESENCE OF FILM SPOTS, FOR WHICH NO CAUSE IS KNOWN.

CAUSE: IT IS FELT THAT RECORDED TEMPS, IN PARTICULAR THE 205 DEG G RECORDED ON THE 1110-2 AFT RECORD ARE IN ERROR AND RESULTED FROM INCORRECT HANDLING IN "FIRSTTIME" USE OF THESE DIALS. FILM HANDLING PROCEDURES USED ON MSN 1110 WERE IDENTICAL TO THOSE OF PREVIOUS CORONA MSNS AND A/C ENVIRONMENTAL RECORDINGS SHOWED NO INDICATION OF DEVIATION FROM NOMINAL.

ACTION: CONDUCT FURTHER EVAL OF TEMP RECORDING TECHS. ASSIGNED [redacted] 25X1

G. ANOMALY: CAM NO WAS IMAGED SEVERAL TIMES ON LAST FR OF MOST OPS. NEXT TO LAST FR OF SOME OPS CONTAINS AN EXTRA BINARY TIME WORD.

CAUSE: THESE CONDITIONS RESULT WHEN THE INHIBIT PULSE IS NOT LONG ENOUGH TO PREVENT DOUBLE FIRING DURING SLOW OP, IE, CREEP MODE. THIS ANOMALY CAN OCCUR FREQUENTLY ON SHUT DOWN WITH NO RESULTING DAMAGE.

ACTION: NO ACTION RECOMMENDED.

H. ANOMALY: RANDON, INTERMITTENT, PLUS DENSITY SPOTS ARE PRESENT THROUGHOUT 1110-2 ONLY. THEY ARE PRESENT ON BOTH FWD AND AFT CAM RECORDS AS WELL AS BOTH 3404 AND SO-349 EMULSIONS. SIZE OF SPOTS VARIES WITH LARGEST APPROX FIVE TEN-THOUSANDTHS IN. DEGRADATION ATTRIBUTABLE TO THESE SPOTS EXPECTED TO BE MINIMAL.

CAUSE: ANALYSIS AT [redacted] EXTABLISHED THAT PLUS DENSITY SPOTS 25X1 ARE SILVER. THEY HAVE A FUZZY, UNSHARP BOUNDARY, AND OCCUR BOTH IN AND

OUT OF FORMAT AREA WITH SIGNIFICANTLY HIGHER FREQUENCY IN LAST FEW INS AT SUPPLY END OF FR. SOURCE OF SENSITIZATION WHICH RESULTED IN THESE SPOTS COULD NOT BE ESTABLISHED, BUT IT IS SUSPECTED TO HAVE OCCURRED IN FLT.

ACTION: ATTEMPT TO DETERMINE CAUSE. ASSIGNED TO [redacted] 25X1
[redacted] 25X1

I. ANOMALY: IMAGERY FROM BOTH CAMS DISPLAYS AN OUT OF FOCUS CONDITION.

CAUSE: INSTRUMENTS WERE FOCUSED FOR AN EXPECTED TEMP OF APPROX 70 DEG F. ACTUAL MSN TEMPS WERE LOWER, IE, APPROX 60 DEG F., RESULTING IN HIGHER THAN EXPECTED DYNAMIC FILM LIFT AND VARIABILITY DURING EXPOSURE. IN ADDITION, NONUNIFORMITY ACROSS FORMAT IS ATTRIBUTED TO HIGHER THAN NORMAL FILM TILT, CAUSE OF WHICH IS UNKNOWN. THUS, ONE EDGE OF FORMAT IS AS SHARP AS EXPECTED FOR THESE UNITS AT THESE TEMPS, WHILE REST OF FORMAT IS MORE SERIOUSLY DEGRADED.

ACTION: INSTRUMENTS WILL BE SHIMMED FOR A TEMP OF 60 DEG F., ANTICIPATED FLT ENVIRONMENT. IN ADDITION, CONDUCT AMBIENT AGT TESTS ON REMAINING SYS. UTILIZING THESE DATA, ADJUST INSTRUMENTS TO OBTAIN MIN FILM TILT. ASSIGNED TO [redacted] 25X1

J. CHARACTERISTIC ANOMALIES HAVING A MINOR AFFECT ON PERFORMANCE:

(1) ANOMALY: OUT OF FOCUS AREAS PRESENT ON FRS 3 AND 4 OF FWD CAM OF SOME PASSES AND ON FRS 4 AND 5 OF AFT CAM.
CAUSE: AFT CAM HAS SIT MARKS ON FRS 4 AND 5 SIMILAR TO THOSE WHICH OCCURRED DURING MSN 1109/CR-9 FWD.
ACTION: NO ACTION RECOMMENDED.

(2) ANOMALY: AN EQUIPMENT IMAGE ASSOCIATED FOG PATTERN IS PRESENT ON FOURTH FR FROM END OF SOME FWD PASSES.
CAUSE: FOG ON FOURTH FR WAS CAUSED BY LIGHT LEAK AT A CORNER OF FWD LIGHT SHIELD ASSEMBLY. DENSITY IS CONSIDERED MINOR AND NO IMAGE DEGRADATION WAS NOTED.
ACTION: NO ACTION RECOMMENDED.

(3) ANOMALY: A MINOR CHARACTERISTIC FOG PATTERN DESCRIBED AS "SPLASHING"IS PRESEN ON FIRST FR OF MOST OPS.
CAUSE: CHARACTERISTIC OF CR SYSTEM.
ACTION: NONE.

5. DISIC CAM PERFORMANCE: LAST ACQUISITION OBTAINED FROM INDEX CAM IS FR 55 OF PASS 301. LAST STELLAR ACQUISITION IS PORT 58 OF PASS 304. POINT-TYPE STAR IMAGES WERE RECORDED BY BOTH STELLAR CAMS. APPROX 12-20 STAR IMAGES WERE RECORDED ON PORT AND STB FORMATS. INDEX IMAGE QUALITY, WHERE NOT DEGRADED BY STATIC FOGGING, IS GOOD.

6. DISIC ANOMALIES:

A. ANOMALY: MULTIPLE, CORONA, DENDRITIC, AND GRID PLATE STATIC DISCHARGE IN PORT AND STB FORMATS IS PRESENT INTERMITTENTLY THROUGH MSN. STATIC DISCHARGES ARE MORE PROMINENT ON 1110-2 AND HEAVIER ON STB THAN ON PORT.
CAUSE: AN EMULSION BUILDUP ON THE RESEAU GRID LINES INCREASES TO APOINT AT WHICH STATIC FROM GRID LINES DISCHARGES IN A TYPICAL GIRD-LIKE FASHION. CORONA DISCHARGES ARE PRESSURE SENSITIVE AND MORE VISIBLE DURING INDEPENDENT MODE WITH PMU OFF.
ACTION: CONDUCT AN EVAL OF PRESENT PMU CONFIG TO DETERMINE POSSIBILITY OF PROVIDING PMU PRESSURE DURING DISIC INDEPENDENT OPS. ASSIGNED TO [redacted] 25X1

B. ANOMALY: FIVE FRS DID NOT HAVE BINARY TIME WORD IMAGED, (EX: PASS 168, FR 28).
CAUSE: ADJ TIME WORDS WERE SHARP, THEREFORE PROBLEM IS MORE LIKELY ELECTRICAL THAN MECHANICAL AND ABSENCE OF TIME WORD MAY HAVE BEEN DUE TO A MISSED DATA REQUEST PULSE.
ACTION: NO ACTION RECOMMENDED.

C. ANOMALY: MSN 1110 INDEX FILM IS DEGRAADED BY BAND OF LINES

AND ASSOCIATED STATIC WHICH ARE MOST OBVIOUS IN CTR OF FORMAT. BAND APPEARS AS MINOR DEGRADATION AT BEGINNING OF MSN AND PROGRESSIVELY WORSENS TOWARD END OF MSN WHERE FRS IN INDEPENDENT MODE ARE 80 PCT DEGRADED. THERE IS EVIDENCE ON PAD-LOADED PORTION OF A RUBBING INTERFERENCE OVER APPROX THREE-QUARTERS OF FORMAT. MAJOR LINES APPEAR AT 2.5MM SPACING AND ARE COINCIDENT WITH RESEAU LINES. HOWEVER, MANY MINOR LINES AND BANDS WITHIN MAJOR BAND ARE NOT COINCIDENT WITH RESEAU LINES. SOME EVIDENCE OF EMULSION RUB APPEARS COINCIDENT WITH RESEAU LINES IN INNER FR AREAS. FIVE BLANK FRS IN PASS 9 SHOW BAND OF LINES AS VERY CONTINUOUS BAND WITH LITTLE, IF ANY, EVIDENCE OF METERING. PRESSURE CHANGES DUE TO PMU TURN-ON AND -OFF ARE STRIKINGLY EVIDENT IN THAT CORONA MARKING IN INDEPENDENT MODE IS MUCH HEAVIER THAN IN DEPENDENT MODE.
CAUSE: FOLLOWING CONDITIONS COULD HAVE CAUSED ANOMALY: (1) MIS-THREADING OF FILM PATH IN SUPPLY CASSETTE, BODY ASSEMBLY OR EXIT HOUSING, (2) OUT OF TIMING OF PLATEN WITH RESPECT TO FILM METERING CYCLE, (3) FAULTY SKEW ROLLER IN EXIT BOX. THE FOLLOWING OBSERVATIONS ARE MADE FROM AVAILABLE DATA: (1) CUT AND SPLICE DEVICE AND TAKE--UP CASSETTES CAN BE ELIMINATED AS CAUSES SINCE, AT TIME OF CUT AND SPLICE, MARKING CONTINUED AND WAS UNCHANGED THROUGH SPLICE. (2) CENTRAL MARKING AREA SHIFTS SLIGHTLY AND HEAVY DENSITY AREAS FAVOR SIDE OPPOSITE SLP, A CONDITION WHICH MIGHT BE EXPECTED SINCE SKEW ROLLER IS PRESET IN SUCH A WAY AS TO LOAD SIDE OPPOSITE SLP.
(3) FORMAT CORNERS ARE SHARP AND FLAT, AND SLP REGISTERS CORRECTLY. PRELIMINARY EVIDENCE FROM CLEAT INDICATES FILM FLATNESS AND CALIBRATION WERE MAINTAINED IN MSN. THEREFORE, IT IS UNLIKELY THAT A PLATEN PAD PROBLEM WAS CAUSE, ALTHOUGH A ROUGH PAD EDGE CANNOT BE ELIMINATED AS A POSSIBILITY. (4) NO EVIDENCE OF SIMILAR-TYPE PROBLEM ON STELLAR MATERIAL. THIS REDUCES, BUT DOES NOT ELIMINATE POSSIBILITY OF A SUPPLY CASSETTE PROBLEM.
ACTION: (1) ENDEAVOR TO DUPLICATE MARKINGS AS THEY APPEARED ON PREFLIGHT PORTION OF FILM IN A N EXISTING DISIC SYS.
(2) IF REQUIRED, CHANGE DISIC ASSEMBLY AND TEST PROCEDURE.
ASSIGNED TO [redacted] 25X1
7. REVIEW OF SO-349 (3414) AND 3404 ON'S INDICATES NO APPARENT DIFFERENCE IN IMAGE QUALITY. HOWEVER,ABILITY TO DECREASE SLIT WIDTHS AND THEREBY DECREASE SMEAR COMPONENTS, FAVOR FUTURE USAGE OF 3414. PET RECOMMENDS USE OF 3414 IN FUTURE FLTS. IT IS ALSO RECOMMENDED THAT PORTION OF MSN 1111-1 BE PROCESSED NORMALLY (NOT FORCED DEVELOPMENT) AND COMPARED WITH REMAINDER OF 1111-1 TO DETERMINE BEST PROCESSING METHOD FOR MSN 1111-2 AND SUBSEQUENT MSNS.
8. MSN 1111: MSN 1111 PLANNING WAS DISCUSSED AND DECISION CONCERNING CONVENING OF PET MEET AT [redacted] WAS POSTPONED UNTIL 25X1
LATE JULY. GROUND TEST PERFORMANCE OF SYS CR-12, WHICH WILL BE FLOWN ON MSN 1111, INDICATES IT IS COMPARABLE TO THAT OF CR-11, WHICH WAS FLOWN ON MSN 1110. KNOWN AUG CLIMATOLOGICAL PARAMETERS AND ASSUMED HIGH MSN ALT WILL LIKELY RESULT IN SIMILAR PHOTO INTERP COMMENTS FOR MSN 1110 AND 1111. AN MIP OF 90-100 IS ANTICIPATED. FOLLOWING DATA SUM FOR MSNS 1101 - 1111 IS PROVIDED FOR INFO PURPOSES:

MSN NO/ SYS NO	LAUNCH DATE	INST/ LOOK	LENS TYPE	FIL	PEAK RES	FIG OF MERIT	ALT NM	MIP PRED	MIP -1/-2
1101/ CR-1	9-15-67	302A	1	W-21	125	60.	85	70	N/R'
		303F	1	W-23A	122	95	85	85	85-1

1102/

CR-2	12-9-67	304A 1	W-21 122	115	87	90	N/R
		305F 2	W-25 137	130	87	95	90-1
1103/							
CR-3	5-1-68	306A 1	W-21 136	125	88	85	N/R
		307F 2	W-25 147	125	88	95	90-1
1104/							
CR-4	8-7-68	308A 2	W-21 141	145	87	110	N/R
		309F 3	W-25 172	165	87	110	115-1
1105/							
CR-5	11-3-68	310A 1	W-21 158	130	85	95	95-1
		311F 3	W-25 187	180	85	105	N/R
1106/							
CR-6	2-5-69	312A 2	W-21 130	125	83	100	N/R
		313F 3	W-23 184	175	83	110	110-1
1107/							
CR-7	7-24-69	314A 2	W21 141	135	99	95	95-1
							95-2
		315F 3	W-23 207	185	99	105	FLD
1108/							
CR-9	12-4-69	316A 1	W-21 132	130	82/100	95	N/R
		317F 3	W-25 188	180	82/100	105	105-1
							100-2
1109/							
CR-10	3-4-70	320A 3	W-23A 158	150	94	100	N/R
		321F 3	W-25 202	190	94	110	110-1
							100-2
1110/							
CR-11	5-20-70	322A 2	W-21 120	120	92	90	N/R
		323F 3	W-23 166	155	92	100	90-1
					92		95-2
1111/							
CR-12		324A 2	W-21 118	115	95(3)	90	
		325F 3	W-25 175	160	95(3)	100	

N/R - NO RATING (RATINGS BY [redacted] ARE FOR BEST CAM ONLY). 25X1
(1) - FIG OF MERIT IS A COMBINED MEASURE OF DEPTH OF FOCUS AND RES USED IN MAKING ORBITAL PREDICTIONS.
(2) - THE MIP PRED COMBINES FIG OF MERIT AND SCALE IN PROJECTING A BEST MSN POTENTIAL.
(3) - AN ALT OF 95 NM HAS BEEN ASSUMED BASED ON RECENT ORBIT SELECTIONS.
GP-1
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